Involvement/public opinion

Watershed Organization

Public Involvement/Participation

Description

A watershed organization incorporates the ideas and resources of many different groups into a single organization. The groups can consist of local governments, citizens, nonprofit environmental groups, and local universities, among others. The purpose of a watershed organization is to restore, protect, and promote the natural resources of the watershed. To accomplish this, a watershed organization might set goals for and subsequently implement public education and storm water management programs, stream clean-up events, or restoration activities.

Residents and stakeholders attend a meeting of the Russian River Watershed Council in Northern California (Source: Russian River Watershed Council, no date)

Watersheds most likely encompass multiple jurisditions and involve multiple government participants. It is essential for all municipalities that fall within the watershed boundaries to participate in watershed organizations. If a watershed organization is still in the conceptual stage, it will behoove the municipality to help structure it in a way that will serve all interests in the watershed. A municipality cannot--and should not--control a watershed organization, but it can support it, nurture it, and help it achieve its goals.

Applicability

A watershed organization can exist for any watershed, large or small, but organizations for larger watersheds are more common. In all cases where a watershed organization exists, it is crucial for municipalities to be involved in the decisionmaking process so the municipality's goals are achieved. In places where no watershed organization exists, municipalities can initiate the creation of one by working with other stakeholders and interested parties.

Implementation

The creation of a watershed organization results from the cooperation and sharing of ideas of several stakeholder groups, including the municipality. However, a watershed organization must have an organized structure. A constitution and bylaws should be developed, membership and representation defined, and goals and objectives stated.

Guidance is available to help municipalities and other interested parties start watershed organizations. Purdue University's Conservation Technology Information Center (CTIC, no date) developed guidance for watershed organizations, which they term "watershed partnerships," through their Know Your Watershed program, located at *www.ctic.purdue.edu/KYW*.

The watershed organization might sponsor volunteer activities and annual events that involve the general public, school groups, and others in enjoyable, hands-on activities in their watershed. Activities that promote the watershed's quality help citizens learn and appreciate the value of conservation, pollution prevention, and cleanup. Watershed organizations typically sponsor such projects as

- Field trips and tours

- Meetings and workshops

- Canoe trips

- Volunteer monitoring

- Cleanup and restoration days

- Educational programs for schools, civic groups, and other local organizations

- Media relations

- Opinion surveys

- Focus groups (CTIC, no date).

Different members of the watershed organization have different roles. CTIC (no date) recommends that local elected officials

- Provide political leadership and credibility

- Make land use and resource management decisions

- Provide financial support for projects.

They also recommend that local government agencies

- Provide financial and technical support

- Develop policies and make decisions that affect the watershed

- Provide logistical support and equipment

- Collect and analyze data.

Effectiveness

Watershed groups are effective at improving water quality when they are well organized and active and have committed members. For example,in 1996 and 1997, several voluntary, nongovernmental partnerships were honored by CF Industries for their outstanding efforts to protect water quality (Terrene Institute, no date; 1996; 1997; 1998; 1999). The following organizations have received the award:

1996

- Operation Green Stripe (St. Louis, MO)

- French Creek Watershed Advisory Group (Elizabethtown, NY)

- Boquet River Association (Scott River Sub-Basin/Klamath River Basin/Siskiyou County, CA)

- Cheney Watershed Program (South Hutchinson, KS)

1997

- Snowbird Ski & Summer Resort (Snowbird, UT)

- Columbia-Pacific Resource Conservation and Development Council (Aberdeen, WA)

- Grand Traverse Bay Watershed Initiative (Traverse City, MI)

- Heron Lake Watershed Restoration Project (Lakefield, MN)

- Lake Pontchartrain Basin Restoration Program (Metairie, LA)

1998

- Cargill Water Matters Program (Minneapolis, MN)

- French Creek Project (northwestern PA)

- Hillsdale Water Quality Project (Kansas City, MO)

- Indian Lake Watershed Project (west central OH)

- Marin Coastal Watershed Enhancement Project (Sonoma and Marin Counties, CA)

1999

- Sun River Watershed Project (west central MT)

- Friends of the Rappahannock (VA)

- North Branch of the Chicago River Watershed Project (IL)

- Saginaw Bay Watershed Initiative Network (MI)

These programs were selected because they developed innovative, nonregulatory approaches to water quality improvement. More information about these organizations and the National Watershed Award can be found at *www.terrene.org/cfaward.htm*.

Benefits

Watershed organizations can promote a sense of ownership of water resources and improve local awareness of storm water issues. Cleanup and restoration events can benefit wildlife habitat and water quality as well. By forming an organization, each stakeholder gets a voice in the decisionmaking process, which ensures that the final plan represents the consensus of all parties. According to CTIC, watershed organizations also

- Make more efficient use of financial resources

- Create a spirit of sharing and cooperation

- Ensure fairness, which minimizes the potential for negative social and economic impacts

- Result in more creative and acceptable ways to protect natural resources.

Limitations

It takes time and skill to establish partnerships and create an effective watershed organization. Municipalities can not accomplish this on their own--they must rely on other stakeholders to provide input and resources to manage the watershed effectively and with fairness. Motivation and enthusiasm are key to keeping stakeholder participation high. Another limitation for watershed organizations is funding for programs and activities. Organization members should work together to raise money and apply for grants to support these activities.

Cost

Costs for watershed organizations vary with the scope of activities planned for the watershed. Many state and local governments offer grants to watershed organizations. For example, as part of its nonpoint-source pollution control efforts, the Virginia Department of Conservation and Recreation supports, trains, and enhances networking among watershed coordinators by offering information exchange and grants to local projects. Virginia also permits the formation of watershed improvement districts with taxing powers. The Lake Barcroft Watershed Improvement District in Falls Church, Virginia, is an excellent example of a successful watershed organization that gets its funding from tax revenues.

Federal grants are available through USDA and EPA to fund certain types of watershed activities. More information about these and other federal grant programs can be found at USDA's Natural Resources Conservation Service web site at *www.nrcs.usda.gov/NRCSProg.html* and at EPA's Nonpoint Source Control Branch web site at *www.epa.gov/owow/nps/funding.html*.

Additionally, watershed groups can hold fund-raising events, sell T-shirts with their logo and slogan, or hold raffles. The money generated by these activities can pay for activities, field equipment, and other necessities.

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Stakeholder Meetings

Public Involvement/Participation

Description

Public involvement and public participation naturally require the inclusion of stakeholders. Stakeholders are individuals or groups in the community that are most affected by a municipality's storm water program. They have a vested interest in the waterbody and storm water activities. Stakeholders might include citizens, local school groups, community leaders, local and state government representatives, and business owners in the watershed. Stakeholder meetings can be in the form of a local storm water management panel, a public meeting, or any type of interactive, information-sharing event.

A group of stakeholders meets to discuss important issues affecting their watershed

Applicability

Each stakeholder has a vested interest in solving storm water management problems for the particular waterbody. Therefore, stakeholders should be informed of water quality issues in their community and solicited to contribute their ideas and concerns. One way to do this is through stakeholder meetings, where participants can hear what others have to say and can contribute their own ideas.

In addition to inviting the stakeholders, representatives from several local newspapers, radio stations, and television news departments should be included. Journalists, broadcasters, and others who attend the meetings can let others know what happened, when the next meeting is, and how they can get involved.

Implementation

The first step for a municipality is to determine which citizens are most affected by the storm water program. Stakeholders will need to be identified by whether they live or work in the watershed or by their activities. Involving stakeholders in the storm water program can be an important first step in forming a watershed organization. To identify stakeholders, an attitude survey can be conducted that seeks to answer the following questions:

- Is a certain segment most affected by the cost of implementing the storm water program?

- Will a segment of the community (perhaps Hispanic immigrants) have difficulty understanding what the whole program is all about?

- Will the municipality find support among environmentalists?

- Does a segment of the community object to government intrusion as demonstrated by the storm water regulations?

- Has the municipality established good working relationships with large industries in the community that also have storm water permits?

- Is the community already part of a strong watershed organization? (If a watershed organization exists, then this group can form the core of the audience for stakeholder outreach.)

Once stakeholders have been identified, the municipality must decide how to approach them. Flyers and media stories can be used to educate stakeholders and to prepare them for a public meeting. Municipalities might also choose to speak before homeowner, civic, and business groups or to contact a strong watershed organization, if one exists.

After the stakeholders have been educated about the issues, a meeting can be held. The municipality should work with community groups to organize the meeting. If the meeting is to successfully involve stakeholders in the storm water program, the first meeting will set the tone for many others to follow. Rules for conducting the meeting must be agreed upon and can be addressed with the following questions:

- Will the meeting be facilitated?

- Will decisions be made by consensus?

- What approach will the group take?

Once the meeting has been organized, an appropriate meeting place must be chosen. Then the word must be put out to the invited stakeholders through mail, Internet, word of mouth, flyers, and/or posters. Someone will need to be the designated leader of the meeting so that it will be organized.

Since the audience will be diverse and at all levels of scientific knowledge, some of the best ways to disseminate information at stakeholder meetings is through graphics like photographs and charts. Storm water management uses a lot of technical terms, such as "*watershed," "runoff," and "nonpoint source pollution*." A glossary of commonly used terms might be displayed on a flip chart or as an overhead, or it could be provided on a handout given to participants before the meeting starts.

A question and answer period and a time for comments should be planned. It is often difficult to get people to speak in public, but it is a good way for them to express their opinions and concerns. Someone else might hold the same ideas or might not have thought of these new ideas. When questions are asked or comments are made, it is vital that the meeting leader listen carefully, not interrupt, and acknowledge the point(s) made. When giving information, the leader must be sure to be descriptive, nontechnical, and up-front. One of the most important things for the leader to remember is to be straightforward and to answer every question. If the leader is unsure of the answer, he or she can promise to look into it before the next meeting and come to that meeting with an answer.

Some topics that might be addressed at a stakeholder meeting include the following:

- Summary of previous meetings

- Announcements

- New tasks to be undertaken

- Selection of various leadership roles (if necessary), such as volunteer coordinator, minutes recorder, or graphic artist

- Creation of committees (if necessary)

A local storm water management panel might be chosen from the attendees. This panel could consist of representatives from the municipalities in the watershed as well as citizen and business representatives. The roles of the panel could include policy writing and meeting organization.

After the meeting has ended, it is important for a municipality to be careful about relying on the media to inform the public of what happened at the meeting. The media may report only on disagreements or discussions that are more sensational than substantive. The media can also intimidate people from speaking for fear of being quoted and encourage others to dominate the discussion for the same reason.It can be useful for the meeting leader to prepare a news release that summarizes the results of the meeting and to distribute it to the local media within the next day or two.

Effectiveness

The effectiveness of a stakeholder meeting is a function of its overall organization. It is more likely that assignments will be accomplished if meetings are conducted in an orderly manner. Sometimes the issues might be controversial or might negatively affect some of the participants. These matters should be handled as professionally as possible so that no one leaves a meeting feeling disregarded. It should be made clear that not all issues will be solved and maybe not everyone will be satisfied, but together the stakeholders can come up with the best compromise.

To be effective, stakeholder meetings must be attended. Finding an appropriate location for the meetings, such as a local school auditorium or a public library, is vital. The location must be easily accessible, able to accommodate the applicable number of participants, and equipped with the appropriate resources, such as outlets for projectors, speakers for microphones, and tables and chairs.

Most important is the time the meetings are held. If the stakeholders work during the day, it could be difficult for them to make a mid-morning or early-afternoon meeting. Typical commutes must also be considered. If the meetings are to be held in a suburban community and most people in that community work in the city and travel a considerable distance each way, adequate commuting time must be allowed. If the meeting is held during dinner hours, it would be appropriate to serve refreshments. The better the timing and location, the easier it is for people to attend.

Benefits

One of the greatest benefits of stakeholder meetings is the accumulation of ideas from people of all backgrounds and all interests. Some participants will be more knowledgeable than others, and they can share their expertise with the other stakeholders. In some cases, stakeholders might belong to other groups with overlapping concerns. In such cases, resources can be pulled together to achieve corresponding goals.

Limitations

Determining who to include and who to eliminate as potential attendees stakeholders could be a limitation. People who are not inherently affected by the storm water management activities should not be included because they could draw the group's attention away from the real issues. Other limitations include finding an appropriate location and time to meet, costs associated with planning and holding meetings, and keeping the stakeholders organized and focused enough to get items accomplished.

Cost

The costs associated with stakeholder meetings revolve around planning and conducting the meetings. The flyers, mailings, or other means of announcing the meeting incur costs for design, production, copying, and distribution (e.g., stamps and envelopes). There also might be rental fees for a meeting location. Producing and distributing minutes of meetings might involve additional costs.

References

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Attitude Surveys

Public Involvement/Participation

Description

Surveys of how the public perceives storm water management can foster better planning and management programs. The results of these attitude surveys can enlighten both storm water managers and the public on what the sources of pollution are, the effects of storm water on the environment, and options for control. Public attitude surveys can bring to light what is important to the stakeholders. Program planners can use this information to determine how best to incorporate the public's needs and desires into the overall goals of any storm water management program.
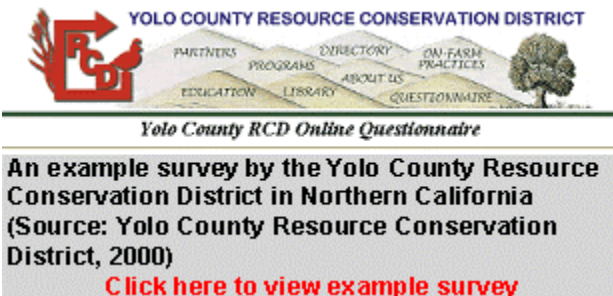
Applicability

Attitudes toward storm water and the best management practices used to manage it can influence the effectiveness of control measures and clean-up efforts. Determining public perceptions, expectations, and desires is an important place to start. Attitude surveys of interested parties can enlighten storm water managers about the appropriate steps to take and the misconceptions to fix.

Implementation

The first step of an attitude survey is to determine who should be surveyed and how. People who could be surveyed include the residents of particular communities, local business owners and operators, schoolchildren, and other groups. Surveys should be tailored to the municipality's various population segments to account for demographic shifts by age, ethnicity, and income. This may require several types of surveys and languages to ascertain true attitudes. People could be surveyed by mailing each individual a paper survey to complete and return. They can also be interviewed at strategic locations throughout the community, e.g., at the public library or at several shopping centers. An electronic survey could be developed and placed on the Internet, or telephone surveys could be conducted. There are also many different statistical methods for surveying, and one type of method should be chosen. In some cases, one survey may not be sufficient. As cities change, surveys may need to be updated periodically.

Once the groups to survey and the best method to survey them have been determined, it should be decided what questions to ask. A municipality can determine what information it needs to know by addressing the following questions:

- Have citizens complained about new restrictions caused by the storm water program?

- Do people even know what storm water means?

- Is the municipality about to raise sewer rates (as a result of the storm water regulations)?

The *Upper Mississippi River Resource Book* (MacWilliams Cosgrove Snider Smith Robinson, 1996) is a good resource for determining what types of questions to ask. It presents the results of several public attitude surveys on public perception of the Upper Mississippi River and its tributaries. Some of the issues covered by these surveys are listed below. Questions about these and other issues could be included in a storm water public survey.

- Agricultural activities

- Forestry management

- Changes in a waterbody's hydrology

- Recreation

- Public needs

- Property rights

- Sources of pollution

- Present and past water quality

- Wetlands

Municipalities might need professional help in preparing and conducting surveys. Such help is available from local colleges and extension services. EPA also provides survey help in *Understanding a Sense of Place: A Guide to Analyzing Community Culture and the Environment* (USEPA, 2001), a resource which is pending publication in early 2001.

The Florida Department of Environmental Protection's Division of Marine Resources conducted a series of surveys to help strategize its Outreach and Education Plan. Questionnaires were developed for a mail survey of randomly selected employees and for a telephone survey of Florida residents, licensed boaters, and licensed saltwater anglers. The results of these surveys helped the Division formulate its goals to educate and inform Florida residents about marine resources (Duda and Young, 1996).

After a predetermined date for the end of the survey, the results of the returned surveys should be compiled and analyzed. Once the results have been summarized, they can be used in instructional materials to educate citizens and business owners in the area or they can be used in a municipality's annual report to show change and improvement over the year. The local government, area environmental groups, and others might use the results to develop plans for future efforts to manage storm water more effectively.

Effectiveness

The effectiveness of any survey depends on several factors, including the length of the survey, the ability of the recipient to understand the questions, the time needed to complete it, the cost (if any) to return it, and public interest in the topic. The more straightforward the questions and the easier it is to answer them, the better the response will be. In other words, multiple questions should not be asked on the same issues, and the questions should be brief and to the point. If mailed surveys are used, placing return postage on them encourages people to return them.

Benefits

One of the benefits of conducting a public attitude survey is to find out what people really think about an issue. It also allows a person not normally involved in an issue, but a stakeholder nevertheless, to voice an opinion. Attitude surveys are also helpful in targeting public education, awareness, and information programs. By understanding what the public perceives and wants, a municipality can better implement storm water management into the community.

Limitations

The greatest limitation of any survey is its level of response. Response level encompasses the number of completed surveys returned, the number returned incomplete, and the number returned after the predetermined end date for responses. The validity of the responses, therefore, is also a limitation.

Cost

The costs associated with an attitude survey depend on its type. A survey mailed to every resident of a county, for example, would be more expensive than a survey sent to a randomly selected sample. Furthermore, if the surveys to be returned are pre-postage-paid, the cost is greater. A survey conducted on the Internet, perhaps on the municipality's home page, would cost little to nothing. Its statistical validity, however, would be questionable because it would be hard to control repeat respondents and responses by nonstakeholders.

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Community Hotlines

Public Involvement/Participation

Description

Because regulators and authorities cannot monitor all waterbodies at once, they sometimes rely on the public to keep them informed of water polluters. Community hotlines provide a means for concerned citizens and agencies to contact the appropriate authority when they see water quality problems. A hotline can be a toll-free telephone number or an electronic form linked directly to a utility or government agency, such as the water quality control board. A typical call might report a leaking automobile, concrete wash-out dumped on the street, paint in a creek, or organic debris (including pet waste) in a drainage system or waterway.
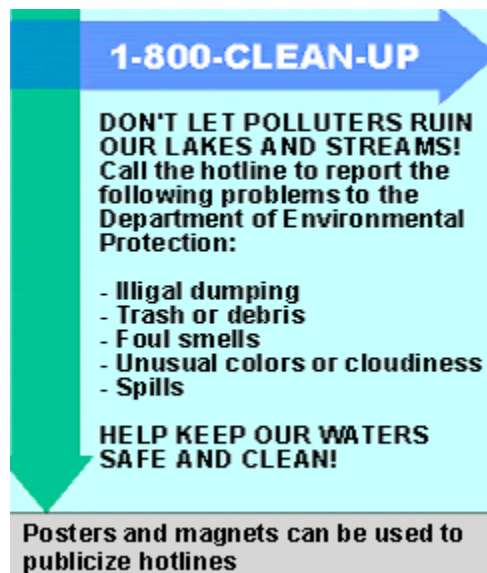
Applicability

Generally, an investigation team promptly responds to a hotline call and, in most cases, visits the problem site. If a responsible party can be identified, the team informs the party of the problem, offers alternatives for future disposal, and instructs the party to resolve the problem. If the issue is not resolved by the responsible party (or the party cannot be identified), the proper authority takes action to remediate the situation and prevent future violations.

Implementation

A municipality must first determine whether they need a hotline and, if so, whether the hotline is needed immediately or in the near future. A city can identify their need for a hotline by addressing the following questions:

- Does the city receive frequent phone calls for information about water bodies and stream pollution?

- Are there frequent complaints?

- Are there any anticipated construction or other projects in the city?

- Are there any new ordinances or regulations?

- Does the city currently use a "hit or miss approach," in which whoever picks up the phone deals with the situation?

Once a city has determined that they need a hotline, they should choose between a telephone or an e-mail hotline. A city might decide to do both, at least for a short period of time.

To establish a storm water pollution hotline, a party or agency responsible for maintaining the hotline and responding to incoming complaints must first be identified. The responsible party could be a division of local government, a water quality board, a public utility, or an environmental agency. If the city chooses to use its own staff, it should keep in mind that the staff will require training. The city could also contract with a professional hotline provider. Once the party has agreed to maintain the hotline, it will need to establish a telephone number (preferably toll-free and to be used solely to report pollution complaints) and/or Internet site to receive notification.

All distributed materials should include pollution hotline numbers and information. Typically, hotlines are advertised on public education materials concerned with water quality, such as flyers, door hangers, and brochures. The hotline could also be publicized on "permanent" materials such as bumper stickers and refrigerator magnets, where the number can be retained and easily located.

Hotline costs can be minimized by staying a step ahead of questions and by developing close liaison with city staff to anticipate information needs. Cost estimates can be obtained by comparing the costs of training city staff and using a professional hotline service. A cost comparison should also be made between a person and an e-mail presence for the hotline. Municipalities can obtain specific information about establishing and running a hotline by interviewing contractors who specialize in operating hotlines.

Seattle, Washington, Hotline. The city of Seattle, Washington, provides an on-line "Surface Water Quality Complaint Form" to allow concerned citizens to file e-mail reports of pollutant discharges to the city's creeks, lakes, and storm system. The form includes spaces for information about the person making the complaint and the alleged violation. If worried about privacy, a reporter can submit the complaint by telephone. It is the policy of the city of Seattle to keep the identification of callers confidential, pursuant to the provisions of the Washington Public Information Act.

Seattle Public Utilities surface water quality field investigators respond to water quality-related complaints within the city's limits. When the team responds to a complaint, they make every attempt to determine the responsible party and inform them of the environmental impact of their actions. The responsible party is required to stop the action that is polluting the surface water. Staff members provide information on cleanup, alternative disposal options, erosion control, and other best management practices (City of Seattle, 1999).

Charlotte, North Carolina, Hotline. Over the past 6 years, the city of Charlotte, North Carolina's, local storm water hotline (336-RAIN) has received 20,000 phone calls concerning water quantity and quality problems. The hotline not only helps the city respond to flooding, spills, and dumping incidents, but also provides a rough indicator of the success of public education efforts. Hotline activity increases significantly after educational materials are mailed. Callers can also receive free educational materials through the hotline number. The city also advertises for the county's water quality hotline (Lehner, 1999).

Effectiveness

A storm water hotline is effective when its number is easily remembered (i.e., has a catchy name) or is easily accessible. Most important, however, is the responsiveness of the hotline. If a citizen reports an illegal dumping but no action is taken by the appropriate authority, that citizen could lose faith in the hotline and might not call back with future information.

Benefits

A hotline can serve as a link between the citizens and the municipality's government. It can be an avenue for citizens to feel more involved in their community. It also can be a great way to catch illegal polluters or to stop accidental spills that might otherwise go unnoticed.

Limitations

There are several limitations to community hotlines. The first is the community's ability to pay for it. The second is the ability of the community to keep the hotline staffed. Finally, the hotline must be advertised in order for the effort to be successful.

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